CITY COUNCIL REPORT
PUBLIC

DATE: October 2, 2015

TO: Mayor and City Council

FROM: Erin Young, Water Resources Manager

CC: Josh Copley, Jerene Watson, Barbara Goodrich, Leadership Team

SUBJECT: Trace Concentrations of Prozac Detected in Foxglenn Well

Council asked staff to have the concentration of Prozac (aka Fluoxetine) found within the Foxglenn Well to be put into perspective. The City Manager's Panel on Compounds of Emerging Concern recommended the City sample for contaminants that are likely being utilized or prescribed for use in the Flagstaff community. These data will provide background information in preparation for any future regulation. The city responded and sampled 3 wells. Specifically, Foxglenn Well was sampled on June 12, 2014 for 95 unregulated compounds of emerging concern. Of the 95 compounds tested, one (1) was detected at the Foxglenn Well. The concentration for Fluoxetine was 24 ng/L (nanograms per liter or part per trillion).

Based on the concentration detected in Foxglenn Well, exposure to one standard dose of Prozac (10mg) would require someone to drink 1.76 million glasses of water in one day.

The above analysis was derived from a recent Water Research Foundation[1] publication that we've referenced to put concentrations of CECs into perspective. The Water Research Foundation is an internationally recognized leader in water research that is dedicated to advancing the science of water by sponsoring cutting-edge research and promoting collaboration.

$$Required\ water\ consumption\ (\#\ of\ 8\text{-}oz\ glasses) = \frac{Unit\ dose\ (mg/unit) \times 1000\ (\mu g/mg) \times 4.23\ (glasses/L)}{Detected\ water\ concentration\ (\mu g/L)} \quad (4.9)$$

= (10 mg/L x 1000 (µg/mg) x 4.23 (glasses/L)) / (0.024 µg/L) = 1,762,500 of 8-oz glasses of water

[1]Water Research Foundation (WRF), 2015, Pharmaceuticals and Endocrine Disrupting Compounds in Water: A Primer for Public Outreach, 4387a, 85p.